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Letting Off Steam: Unleashing Geothermal Energy Development on Federal Land

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Chairman Stauber, Ranking Member Ansari, distinguished Members of this Committee and Subcommittee, thank you for the opportunity to appear before you today. My name is Tim Latimer, and I am Co-founder and Chief Executive Officer of Fervo Energy. This company was born during my time working as a drilling engineer in the Texas oil fields, where I saw firsthand the innovation, grit, and expertise that define America's leading energy workforce. At Fervo, we are building on that legacy, harnessing the same technologies, talent, and spirit that powered the shale revolution to tap an inexhaustible domestic resource, heat from the earth's core.

Fervo's mission is simple: deliver reliable, around-the-clock baseload power from geothermal heat. It is my privilege to be here with you all in Cedar City and to introduce you to Fervo's Cape Station Project. We proudly call Cape Station a prime example of the energy addition; we are not replacing jobs or resources, we're expanding our toolbox to meet America's unprecedented electricity demand growth. Today, we are putting steel in the ground that will generate 500 megawatts by 2028. None of this would be possible without the men and women of the oil and gas industry, a workforce I'm proud to have been a part of, who are now writing the next chapter of American energy dominance.

Cape Station is the world's largest next-generation geothermal project and a shining example of what is possible through Enhanced Geothermal Systems (EGS). Cape Station is the result of a dedicated partnership between Fervo, the people of Utah, the federal government, this Committee, our many investors, commercial partners, and academic collaborators, and the oil and gas industry.

We at Fervo also see Cape Station as something much bigger than an individual project. It is the start of a new era of American energy, built on American innovation, with American technology, by American workers. And as electricity demand surges, the development and commercialization of next-generation geothermal has arrived at exactly the right time.

We are working to realize that vision in collaboration with the federal government, this Committee, the people of Utah and others across the country. And, we look forward to building this future together.

Unleashing American Geothermal Energy

A decade ago, the concept of harnessing unconventional geothermal resources and transforming them into baseload power was just starting to emerge. At that time, we founded Fervo Energy to answer a basic question: if the oil and gas industry had made radical progress to unleash American production of unconventional oil and gas, could we use some of those same American innovations to unlock the potential of American geothermal?

We had many reasons to be confident. Geothermal is not new. Subsurface thermal resources have been a source of electricity in the United States for decades, and a source of heating and cooling for even longer. And, there has always been significant crossover between the technologies and techniques of our sector and the oil and gas industry.

By 2015, the oil and gas sector – in close partnership with the federal government and many others – had already developed breakthrough innovations that unlocked production of unconventional hydrocarbons, unleashing the shale revolution. Those included many critical American technologies that changed the world, including reservoir engineering and well stimulation techniques, polycrystalline diamond compact drill bits, microseismic imaging, and horizontal drilling. All of these were developed through close collaboration between the private and public sectors, a robust set of evolving policy support, including tax incentives, and shared investment in research and development. All of these tools could be applied now to geothermal with similarly gamechanging results.

Over several years, we adapted these technologies to geothermal. We have applied proven oil and gas technologies – such as horizontal drilling, multi-stage stimulation, and distributed fiber optic sensing – to geothermal reservoir development, unlocking geothermal power in previously uneconomic locations and dramatically increasing the geothermal resource potential.

We have also gotten results. In 2023, Fervo completed a full-scale commercial pilot, Project Red, in northern Nevada. In a partnership with Google, we brought Project Red online in 2023 to generate 3.5 Megawatts enough electricity to power over 700 homes. This project represented a true technical breakthrough: it set new records for both flow and power output from an enhanced geothermal system, and confirmed the viability of our subsurface engineering approach. The technical success of Project Red set the groundwork for taking EGS to scale at Cape Station.

Today, we are proud to say that Cape Station is making next-generation geothermal a reality. Phase 1 of the project, with a capacity of 100 megawatts, is on track to commence commercial operations in 2026. Together with Phase 2, the project will generate 500 megawatts by 2028. This is EGS at scale, producing affordable, always-on baseload power for families and businesses across the west.We have already drilled 20 wells at Cape Station – 80% of the wells required for Phase 1 of the project – representing a massive milestone in the de-risking of commercial-scale EGS production. And, we have also partnered with Mitsubishi Heavy Industries to construct three Organic Rankine Cycle power plants adjacent to our drilling pads, directly linking our subsurface activities to surface power production.

In other words, we are already well underway in building America's geothermal future.

Unleashing American Geothermal Jobs

One of the Cape Station's greatest advantages has nothing to do with drill bits or fiber optic cables. That is our location and the people here in Southwestern Utah. We are fortunate to be a part of this community and look forward to being a key contributor to its thriving success long into the future.

President Trump has spoken about the importance of new energy development and how these projects will create jobs and economic prosperity for people across America, particularly in rural communities.[1] Cape Station is exactly this type of project. The construction of Phase 1 is currently employing over 250 workers on site, and with stable and predictable drilling and development for years to come, we're just getting started. Geothermal is a long term investment and with Fervo's commitment to Beaver County, we're building a partnership for decades to come.

Beyond the project itself, Fervo is an active part of this community. Our team regularly attends city council and county commission meetings. I have personally held townhalls in Beaver City and Milford, creating a platform for open dialogue on topics including jobs, housing, groundwater sources and seismicity. We have proudly sponsored the Beaver County Rodeo and the Milford City Sesquicentennial Celebration. In all of partnerships we exemplify a core Fervo value: *do what you say you're going to do*. That means being straightforward about our plans, open in our collaboration, and always looking for ways to bring good jobs and sustainable growth to this area.

Public-Private Partnership to Unleash American Geothermal Leadership

[1] Trump, D. J. (2025, January 20). *Executive Order 14156: Declaring a national energy emergency*. The White House. https://www.whitehouse.gov/presidential-actions/2025/01/declaring-a-national-energy-emergency/.

At his inauguration in January 2025, President Trump declared that the United States is in a national energy emergency.[2] Demand for energy – the foundation of modern life and economic growth – is increasing to unprecedented levels, reflecting growing demand from advanced computing, industrial growth, heating and cooling and more.

As President Trump rightly said, the United States needs a "reliable, diversified and affordable supply of energy" to meet surging demand, bolster the resiliency and reliability of our power grid and critical infrastructure, and power American prosperity. At Fervo, we believe that foundation is being built here, at Cape Station. This site isn't just a milestone, it's a living model for the future of a reliable grid. With scalability unmatched by any other firm, baseload resources, Cape Station represents the future of American energy, made possible by the same technology, workforce, and expertise that made the United States the world's leading producer of oil and gas.

As with the development of the American technologies that unlocked the shale revolution, the federal government and this Committee are indispensable partners in our efforts to build the energy supply that President Trump has called for. In particular, the federal government can help unleash geothermal dominance by taking key steps in in two areas:

1. **Implementing Sound Federal Land Management Policies;** and
2. **Focusing Federal Research, Development and Demonstration Investments on Next-Generation Geothermal projects.**

Implementing Sound Federal Land Management Policies

Accelerating geothermal development means taking steps to simplify and expedite the permitting of energy projects on federal lands. This is particularly important for geothermal: 90% of American geothermal resources exist underneath federally managed land, and federal permitting processes create significant bottlenecks to geothermal development.

The repetitive analyses and redundant approvals required to develop a geothermal project on public land under the National Environmental Policy Act of 1969 (NEPA) can take up to ten years or more. Historically, this process has also taken longer and been more prone to delay for geothermal than for other renewables or for oil and gas projects. This means that geothermal developers must put significant capital at risk before there is certainty that the power plant can be built. Permitting uncertainty constrains project development, extends development timelines, limits access to capital and slows technological progress.

[2] Trump, D. J. (2025, January 20). *Executive Order 14156: Declaring a national energy emergency*. The White House. https://www.whitehouse.gov/presidential-actions/2025/01/declaring-a-national-energy-emergency/.

Over the past year, thanks in large part to leadership from this Committee, Congress has advanced several important proposals to reduce the red tape associated with federal permitting processes and accelerate American geothermal development.

In the 118th Congress, the House of Representatives passed five geothermal leasing and permitting bills on a bipartisan basis, including Representative Fulcher's CLEAN Act and now-Senator Curtis's Geothermal Energy Opportunity (GEO) Act. The momentum has continued into the 119th Congress. Already this session, Mr. Fulcher has reintroduced the CLEAN Act and Representative Celeste Maloy, from here in Utah's 2nd District, has picked up on Sen. Curtis's leadership in sponsoring both the GEO Act and the STEAM Act. In the Senate, the Energy Permitting Reform Act of 2024 included a geothermal title that included important bipartisan reforms to create parity between geothermal and oil and gas development, provide certainty in permitting timelines, increased leasing frequency and more.

We strongly support enactment of these important reforms and we look forward to working with President Trump, with the 119th Congress, and with this Committee to achieve these goals.

Focusing Federal Research, Development and Demonstration Investments on Next-Generation Geothermal Projects

The federal government has been a key partner in our work to make America the world leader in geothermal technologies. Like the natural gas industry a decade ago, development of next generation geothermal technologies is at a critical inflection point. Fervo has now demonstrated the effectiveness of EGS technology, but unlocking private capital and spurring widespread market adoption of these technologies requires them to be further deployed at scale.

To unleash the potential of American geothermal, we should continue to follow the playbook that unleashed the shale revolution in the United States. That includes continued federal investments into subsurface research and development, which is necessary to improve and optimize the tools, techniques and technologies used to harness unconventional geothermal resources. And it also means investment to further de-risk the application of these technologies through repeated EGS demonstration and deployments across different geologies.

In particular, the federal government can help address one of the key barriers to geothermal deployment: exploration drilling risk. In the early stages of commercialization, the private sector's perception of geothermal drilling risk has constrained next generation geothermal to Western states. Addressing this risk through targeted federal support in a range of different locations would significantly expand the footprint of American geothermal generation.

To this end, we appreciate the support that President Trump's initial Fiscal Year (FY) 2026 Budget Request has indicated for increased support for the development of firm, baseload power. We look forward to working with Congress and this Administration across the FY 2026 appropriations process and other avenues to support investments in these important projects.

Conclusion

In 2019, the U.S. Department of Energy released its landmark report, GeoVision: Harnessing the Heat Beneath our Feet. GeoVision projected that American geothermal generation capacity could expand more than 15x, reaching over 120 GW by 2050 and supplying 8.5% of total U.S. electricity generation. GeoVision's projections predated many of the technological advances that Fervo has since made to unlock shallower and cooler geothermal resources.

Today, GeoVision's projections have proven conservative. Follow-on analysis by DOE and the U.S. National Renewable Energy Laboratory (NREL) estimated that geothermal energy generation capacity could exceed 230 GW by 2050 and also found that the nation's available geothermal resource is significantly larger, potentially by orders of magnitude, than previously known.[3] The progress we have demonstrated at Cape Station, both in terms of drilling performance and resource scale shows that EGS is years ahead of even the most optimistic projections.

At Cape Station, you are seeing the birth of EGS – the next great American energy revolution. Fervo is building hundreds of megawatts today, and together with our partners, like the people of Utah and the members of this committee, we are excited to start building gigawatts tomorrow. Thank you for the opportunity to show you the work we are doing here in southwest Utah. I look forward to answering your questions.

[3] *Augustine, Chad, Sarah Fisher, Jonathan Ho, Ian Warren, and Erik Witter. 2023. Enhanced Geothermal Shot Analysis for the Geothermal Technologies Office. Golden, CO: National Renewable Energy Laboratory. NREL/TP-5700-84822. https://www.nrel.gov/docs/fy23osti/84822.pdf.*